

- 08.30 Arrival, with refreshments (in exhibition area)
- 08.50 Welcome to Day 2  
*Alain Bezos, (Association Goset, France, & ESCN Project)*

**Plenary Session 7 Main Theatre, Bldg. 17.**

Session 7: Product Data Technology in Manufacturing (2) -  
Chaired by: Dr Ip-Shing Fan, The CIM Institute, Cranfield University, UK.

- 09.00 Resource Information Management in Autonomous Production Cells and Virtual Enterprises  
*Prof Walter Eversheim, Carlos Brerner, Andreas Haufe, Frank Spennemann, (WZL, TU Aachen, Germany)*  
Decentralized production units require new solutions in data management. An entire information management concept for both company-internal, e.g. Autonomous Production Cells, and enterprise-integrating, e.g. Virtual Enterprises, decentralization has been developed. The concept consists of two major elements. First a resource information model to describe all kinds of production resources has been elaborated. Second a platform-neutral and location-independent data access is realized.

Session 7 continues ➔

**Parallel Session 8 Main Theatre, Bldg. 17.**

Session 8: Product Data Technology and Manufacturing Concepts -  
Chaired by: Dr Therese Lawlor-Wright, University of Salford, UK.

- 11.15 Market Driven Process and Structure Innovations  
*D Spath, Dominik Matt, S Riedmiller, G Selinger, (University of Karlsruhe, Germany)*  
An integral concept will be presented which helps companies to define their individual market-driven strategy for production. It also provides methods and tools for the optimization of business processes and the creation of the necessary structures and rules for their stabilization and continuous improvement.
- 11.45 Concepts for Modelling Configurable Products  
*Hannu Peltonen, Tomi Männistö, Timo Soihinen, Juha Tiitonen, Asko Martio, Reijo Sulonen, (HUT, Finland)*  
The paper defines concepts for configurable products, which are constructed individually for each customer order from pre-defined components according to a pre-defined configuration model. The concepts, which are mainly defined in terms of decisions to be made during a configuration process, include abstract and concrete component types, and the distinction between the completeness and validity of a configuration.
- 12.15 Integrated Development of Conceptual Models for Product and Environmental Information  
*R Anderl, B Daum, H John, Ch Pütler, (Technical University of Darmstadt, Germany)*  
Effective development of environmentally friendly products requires integration of product data models with environmental, technical and economical knowledge. A suitable information modelling technique with tool support has been developed that includes distributed modelling, model transformation and integration of static, functional and dynamic aspects. The resulting information model enables holistic product assessment and context-sensitive information support, implemented into a design system.
- 12.45 Lunch break (in exhibition area)

**Note:**

This afternoon's programme comprises two parallel sessions, 10 & 11, followed by a final closing plenary session, session 12. See pages 10 and 11 for full details.

- 09.30 The OPAL Project: Integrated Information and Process Management in Manufacturing Engineering.  
*Rikardo Bueno, (Fatronik System, Spain)*  
The 'OPAL' objective is to organise and integrate engineering information and to provide methods for defining and operating workflows. Main results include open architecture for the management of engineering information and processes; and hyper media data access which provides users with the ability to navigate easily across the company's engineering information workflow management facilities, which are integrated within the open architecture.

- 10.00 Using Parameterised Templates for Reusable Documentation  
*Brian Matthews, David Johnston, (Rutherford Appleton Laboratory, UK)*  
This paper suggests a method of defining parameterised reusable product documentation given in SGML, and a method of instantiating the documents with data from an STEP-EXPRESS database. This has been realised in the ToDES system which uses a simple EXPRESS library onto a standard database, and provides an interface across the World-Wide Web.

- 10.30 Building, Executing, and Managing a Process for Multi-disciplinary Design and Optimisation (MDO)  
*Dick Laan, K Eftekhari Shahroudi, J B R M Spee, (MIS, Woodward Governor, & NLR, The Netherlands)*  
Multidisciplinary Design and Optimisation (MDO) is an emerging new engineering discipline. The paper will present how an MDO-process can be effectively constructed, executed and managed. Furthermore requirements are stated for an MDO design platform of the future. The role of supporting Product Data Technology like STEP/EXPRESS and CORBA will be discussed.

**Parallel Session 9 Environmental Theatre, Bldg. 16**

Session 9: New Concepts in Product Data Technology (1) -  
Chaired by: Eoin Banahan, RoundRose Associates, Belgium.

- 11.15 The Development of a Generic Design and Construction Process  
*Prof Rachel Cooper, Michail Kagioglou, Ghassan Aouad, John Hinks, Martin Sexton, Darryl Sheath, (University of Salford, UK)*  
Cross-industry learning between Construction and Manufacturing could produce a number of significant improvements for the Construction Industry. The Process Protocol presented in this paper introduces a number of concepts that are new to a traditionally fragmented and litigation driven construction industry, but which have been proven in the Manufacturing industry, and could improve 'client' satisfaction in the construction industry.
- 11.35 PDM in a Systems Engineering Environment  
*Cheryl Atkinson, Dick Mandemaker, (ADSE, & MIS Organisatie-ingenieurs, The Netherlands)*  
The anatomical analogy for Product Data Management (PDM) systems could be considered the backbone of the enterprise, but perhaps it is more like the nervous system. It represents an evolutionary step from the document-centric life we have led, into a product-centric one. A better, more systematic work method provides a double edged benefit: better PDM implementation, and a more systematic engineering process.
- 11.55 EPSYLON: A Enhanced Process Model to Support Lean and Green Manufacturing  
*Flavio Bonfatti, Paola Daniela Monari, Bruno Mussini, (University of Modena, SATA, & Democenter, Italy)*  
The EPSYLON project is aimed at defining, implementing and validating a new software to manage process knowledge and support documentation, planning and monitoring of manufacturing and non-manufacturing activities, the latter concerning product recycling and resource maintenance. The proposed model shows the possibility of representing shop-floor activities independently of the resources, defining alternative resource configurations and obtaining actual shop-floor behaviour by mapping abstract activities onto scenarios.
- 12.15 MaKe-IT SME: Management of Knowledge Using Integrated Tools for SMEs  
*Dr Joachim Niemeir, (Multimedia Software, Germany)*  
The objective of MaKe-IT SME is to develop holistic methods and tools for securing, sharing, and further development of engineering and manufacturing knowledge. MaKe-IT SME will provide methods and an IT solution suitable to the specific needs of SMEs, to flexibly manage the knowledge in-house as well as with co-operating partners, and make available business-relevant knowledge whenever and wherever it is needed.
- 12.35 Discussion session

12.45 **Lunch break** (in exhibition area, Bldg. 17)